IN THE CLAIMS:

Please write the claims to read as follows:

1. (Original) A storage system for use in a storage system cluster, the storage system comprising:

    a storage operating system including a cluster connection manager adapted to create, destroy, and maintain one or more communication sessions with a cluster partner, the cluster connection manager operatively interconnected with a set of cluster connection manager clients.

2. (Original)   The storage system of claim 1 wherein one of the set of communication clients comprises a failover monitor.

3. (Original)   The storage system of claim 1 wherein one of the set of cluster connection manager clients comprises a non-volatile random access memory shadowing process.

4. (Original) The storage system of claim 1 wherein the cluster connection manager is further adapted to perform connection management operations in response to communications from the connection manager clients.

5. (Original) The storage system of claim 4 wherein the communications comprise an application program interface function call.

6. (Original) The storage system of claim 1 wherein the cluster connection manager is further adapted to load balance the one or more communication sessions over a plurality of cluster interconnect devices.

7. (Original) The storage system of claim 1 wherein the cluster connection manager is further adapted to perform a failover procedure for one or more communication sessions from a failed cluster interconnect device to an operational cluster interconnect device.

8. (Original) The storage system of claim 1 wherein the cluster connection manager is operatively interconnected with a plurality of cluster interconnect devices.

9. (Original) The storage system of claim 1 wherein the storage operating system comprises a plurality of cluster connection managers.

10. (Original) A storage operating system, executing on a storage system, the storage operating system comprising:

a cluster connection manager adapted to manage a set of peer-to-peer connections associated with a set of cluster connection manager clients executing on the storage system.

11. (Original) The storage operating system of claim 10 wherein the set of cluster connection manager clients comprises a failover monitor.

1   12. (Original) The storage operating system of claim 10 wherein the cluster connection

2   manager is further adapted to perform load balancing of the set of peer-to-peer connec-

3   tions over a plurality of cluster interconnect devices.

1   13. (Original) The storage operating system of claim 10 wherein the cluster connection

2   manager is further adapted to failover the set of peer-to-peer connections from a failed

3   cluster interconnect device to an operational cluster interconnect device.

1   14. (Currently Amended) A method for initiating a peer-to-peer communication session,

2   the method comprising the steps of:

3   creating, using a cluster connection manager executing on a storage system, an

4   initial connection with a cluster partner;

5   exchanging a set of peer connection information;

6   passing a set of client information to the cluster partner;

7   creating a set of appropriate communication ports;

8   alerting the cluster partner of a ready status; and

9   alerting a set of clients that the cluster partner is in a ready state.

1   15. (Original) The method of claim 14 wherein the set of clients comprises a failover

2   monitor process.

1   16. (Original) The method of claim 14 wherein the set of peer connection information

2   comprises a version number.

1   17. (Original) The method of claim 14 wherein the step of passing a set of client informa-

2   tion to the cluster partner further comprises the steps of:

3   collecting, from a set of clients, the set of client information; and

4   transferring the collected set of client information to the cluster

1   18. (Original) The method of claim 17 wherein the client information comprises a num-

2   ber of communication ports required.

1   19. (Original) The method of claim 17 wherein the set of client information further com-

2   prises an amount of memory requested by a particular client.

1   20. (Original) The method of claim 14 wherein the step of creating an initial connection

2   further comprises the step of using remote direct memory access primitives to create the

3   initial connection.

1   21. (Original) The method of claim 14 wherein the step of creating an initial connection

2   further comprises the step of performing a series of remote direct memory access opera-

3   tions to create the initial connection.

1   22. (Currently Amended) A method for terminating a peer-to-peer communication ses-

2   sion, the method comprising the steps of:

3   alerting, using a cluster connection manager executing on a storage system, a set

4   of clients of an impending termination of the communication session;

5   closing, by the clients, a set of communication ports associated with the commu-

6   nication session; and

7   performing an initialization of a peer-to-peer communication session procedure.

23. (Original) The method of claim 22 wherein the set of communication ports comprises a set of virtual interface connections.

24. (Original) The method of claim 22 wherein the set of clients comprises a failover monitor.

25. (Original) A storage operating system, executing on a storage system, the storage operating system comprising:

a cluster connection manager having means to manage a set of peer-to-peer connections associated with a set of cluster connection manager clients executing on the storage system.

26. (Original) The storage operating system of claim 25 wherein the set of cluster connection manager clients further comprises a failover monitor.

27. (Original) The storage operating system of claim 25 wherein the set of cluster connection manager clients further comprises a nonvolatile random access memory shadowing process.

28. (Original) A system configured to manage reliable peer communication among storage systems in a clustered environment, the system comprising:

one or more peer processes executing on each storage system partner; and

a cluster connection manager executing on each storage system partner, the cluster connection manager creating a set of peer-to-peer connections between the one or more peer processes executing on each storage system.

Please add the following new claims 29 *et seq.*:

1   29. (New) A computer readable medium for initiating a peer-to-peer communication ses-

2   sion, the computer readable medium including program instructions for performing the

3   steps of:

4   creating, using a cluster connection manager executing on a storage system, an

5   initial connection with a cluster partner;

6   exchanging a set of peer connection information;

7   passing a set of client information to the cluster partner;

8   creating a set of appropriate communication ports;

9   alerting the cluster partner of a ready status; and

10   alerting a set of clients that the cluster partner is in a ready state.

1   30. (New) A computer readable medium for terminating a peer-to-peer communication

2   session, the computer readable medium including program instructions for performing

3   the steps of:

4   alerting, using a cluster connection manager executing on a storage system, a set

5   of clients of an impending termination of the communication session;

6   closing, by the clients, a set of communication ports associated with the commu-

7   nication session; and

8   performing an initialization of a peer-to-peer communication session procedure.

1   31. (New) A method for maintaining a peer-to peer communication, the method compris-

2   ing:

3   waiting for an event from a client communicating with a cluster partner to be re-

4   ceived by a cluster connection manager executing on a storage operating system;

5   determining whether the event is a client event; and

6   in response to determining that the event is a client event, performing the event

7   utilizing the cluster connection manager.

1   32. (New) The method of claim 31, further comprising:

2   in response to determining that the event was not a client event, alerting a set of

3   clients of an impending termination of the communication session;

4   closing, by the clients, a set of communication ports associated with the commu-

5   nication session; and

6   performing an initialization of a peer-to-peer communication session procedure.

1   33. (New) The method of claim 32 wherein the set of communication ports comprises a

2   set of virtual interface connections.

1   34. (New) The method of claim 32 wherein the set of clients comprises a failover moni-

2   tor.

1   35. (New) The method of claim 31 further comprising monitoring the status of one or

2   more cluster interconnect drivers utilizing the cluster connection manager.

1   36. (New) A computer readable medium for maintaining a peer-to-peer communication

2   session, the computer readable medium including program instructions for performing

3   the steps of:

4   waiting for an event from a client involved in a communication session to be re-

5 ceived by a cluster connection manager executing on a storage operating system;

6   determining that the event is a client event; and

7   in response, performing the event utilizing the cluster connection manager.

1 37. (New) A storage operating system, executing on a storage system, the storage operat-

2 ing system comprising:

3   one or more peer processes executing on each storage system partner;

4   a plurality of cluster interconnect drivers executing on the storage system; and

5   one or more cluster connection managers configured to detect a failure of a first

6 cluster interconnect driver and in response to determining the failure of the first cluster

7 interconnect driver, utilize a second cluster interconnect driver to access each storage sys-

8 tem partner.

1 38. (New) A storage operating system, executing on a storage system, the storage operat-

2 ing system comprising:

3   one or more peer processes executing on each storage system partner;

4   a plurality of cluster interconnect drivers executing on the storage system; and

5   one or more cluster connection managers configured to detect a high bandwidth

6 load on a first cluster connection manager and in response to detecting a high band width

7 load, utilize a second cluster connection manager to access each storage system partner.